

REMARKS

Claims 1-19 are currently pending in the subject application. By this amendment, the specification, i.e., paragraph [0046], and claims 1, 10-12 and 15 are amended. No new matter is added. Support for amended claims 1, 12 and 15 may be found in the originally filed application, e.g., at paragraphs [0017], [0029], [0040] and [0044]. Claims 1, 12 and 15 are independent.

Applicants note with appreciation the Examiner's acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants note with appreciation the Examiner's acceptance of the drawings filed on October 24, 2003.

A. Introduction

In the outstanding Final Office action:

- a) the specification was objected to because of language informalities;
- b) claims 1-2 and 7-8 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2002/0062090 to Chai et al. ("the Chai et al. reference");
- c) claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Chai et al. reference;
- d) claims 12-14 and 17-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over "Mapping Acupuncture Points Using Multi Channel Device" to Kwok et al. ("the Kwok et al. reference") in view of U.S. Patent Publication No. 2001/0034491 to Benson et al. ("the Benson et al. reference");
- e) claims 1-2, 4-5, 7, 10-11, 15-16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. reference and further in view of the Chai et al. reference;

f) claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. and Chai et al. references and further in view of “Multi-electrode Surface EMG for Noninvasive Estimation of Motor Unit Size,” to Sun et al. (“the Sun et al. reference”); and

g) claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. and Chai et al. references and further in view of “The Design and Fabrication of a Micro-Thermal/Pressure-Sensor for Medical Electro-Skin Application,” to Ho (“the Ho reference”).

B. Objection to the Specification

In the outstanding Final Office action, the specification was objected to as containing informalities. In particular, the Office action stated that the last three lines of paragraph [0046] should be revised for clarity regarding “may be attached to be separated.”

Applicants have amended paragraph [0046] to obviate the objection. Withdrawal of the objection is respectfully requested.

C. Asserted Anticipation Rejection of Claims 1-2 and 7-8

In the outstanding Final Office action, claims 1-2 and 7-8 were rejected under 35 U.S.C. § 102(e) as being anticipated by the Chai et al. reference. The rejection is respectfully traversed for at least the following reasons.

Claim 1 now recites, as amended, *inter alia*,

the apparatus is configured to control pressure applied to each of the measurement sensors so that the pressure applied by the measurement sensors can be varied.

No new matter is added, and support for the amendments to claim 1 can be found in the application as originally filed, e.g., at paragraphs [0017], [0029], [0040] and [0044].

Applicants respectfully submit that the Chai et al. reference fails to disclose, or even suggest, the subject matter presently recited in claim 1. In particular, applicants respectfully

submit that the Chai et al. reference fails to disclose, or even suggest, “the apparatus is adapted to control pressure applied to each of the measurement sensors.”

The rejection is based on an assertion that the electrodes 200 in the electrode array configuration 210 of the Chai et al. reference correspond to the multi-channel electrode including a plurality of measurement sensors. Applicants respectfully submit, however, that the electrode array configuration 210 of the Chai et al. reference does not teach or suggest controlling the *pressure* of each electrode 200 in the electrode array configuration 210. Accordingly, applicants respectfully submit that the Chai et al. reference fails to disclose, or even suggest, the claimed subject matter.

For example, the claimed subject matter discloses that various pressures may be applied to the measurement sensors of the multi-channel electrode 110 when skin impedance is measured, i.e., during the local skin impedance measurement, the pressure applied to each of the measurement sensors of the multi-channel electrode 110 can be controlled to be different, depending on the curvature of the measured body part.¹

In view of the above, applicants respectfully submit that the Chai et al. reference fails to disclose, or even suggest, each and every element of claim 1. Accordingly, claim 1 is allowable over the Chai et al. reference. Dependent claims 2, 7 and 8 depend from claim 1, and thus, these claims are allowable for at least the reasons that claim 1 is allowable. Accordingly, applicants respectfully request that the rejections be favorably reconsidered and withdrawn.

D. Asserted Obviousness Rejection of Claim 9

In the outstanding Final Office action, claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Chai et al. reference. The rejection is respectfully traversed for at least the following reasons.

¹ See paragraph [0029], and FIGS. 7, 9A-9D, 10A-10C and 11A-11C of the specification.

Claim 9 ultimately depends from claim 1, and is allowable for at least the reasons that claim 1 is allowable. Accordingly, applicants respectfully request that this rejection be favorably reconsidered and withdrawn.

E. Asserted Obviousness Rejection of Claims 12-14 and 17-18

In the outstanding Final Office action, claims 12-14 and 17-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. reference. The rejection is respectfully traversed for at least the following reasons.

Claim 12 now recites, as amended, *inter alia*,

positioning a multi-channel electrode having a plurality of measurement sensors parallel to the region to be measured, and controlling pressure applied to each of the measurement sensors of the multi-channel electrode so that the pressure applied by the measurement sensors can be varied.

Applicants respectfully submit that the Kwok et al. and the Benson et al. references, individually or in combination, fail to disclose, or even suggest, the subject matter presently recited in claim 12. In particular, applicants respectfully submit that the Kwok et al. and the Benson et al. references fail to disclose, or even suggest, “controlling pressure applied to each of the measurement sensors of the multi-channel electrode so that the pressure applied by the measurement sensors is varied.”

In the outstanding Final Office action, the rejection is based on an assertion that page 69, Hardware Design paragraph 1, lines 6-8, of the Kwok et al. reference teaches “adjusting a measurement pressure.”² In particular, since the Kwok et al. reference appears to teach that each pin is allowed to slide freely along its length, there will be pressure adjustment for the pins. Applicants respectfully submit, however, that the sliding pins of the Kwok et al. reference cannot be controlled so as to *vary* the pressure because the device of the Kwok et al. reference appears to be a completely different device than the claimed subject matter. In

² See Final Office action dated November 20, 2008, page 6, paragraph 9.

particular, the Kwok et al. reference states that “[e]ach pin is allowed to slide freely along its length so that the weight of the pins applies constant pressure at each contact point.”³ Accordingly, since the Kwok et al. reference teaches that the pins are at a *constant* pressure, it cannot teach or suggest varying the pressure of each sensor pins. Thus, applicants respectfully submit that the Kwok et al. reference fails to disclose, or even suggest, “controlling pressure applied to each of the measurement sensors of the multi-channel electrode so that the pressure applied by the measurement sensors is varied,” as recited in amended claim 12.

In regard to the Benson et al. reference, applicants respectfully submit that the Benson et al. reference has been cited only for its limited teachings of electrodes having a constant current source. In addition, applicants respectfully submit that the Benson et al. reference does not cure the noted deficiency of the Kwok et al. reference, in particular, does not teach or suggest controlling pressure applied to each of the measurement sensors of the multi-channel electrode.

In view of the above, applicants respectfully submit that the Kwok et al. and the Benson et al. references fail to disclose, or even suggest, each and every element of claim 12. Accordingly, claim 12 is allowable over the Kwok et al. and the Benson et al. references. Dependent claims 13, 14, 17 and 18 depend from claim 12. Accordingly, these claims are allowable for at least the reasons that claim 12 is allowable. Therefore, applicants respectfully request that the rejections be favorably reconsidered and withdrawn.

F. Asserted Obviousness Rejection of Claims 1-2, 4-5, 7, 10-11, 15-16 and 19

In the outstanding Final Office action, claims 1-2, 4-5, 7, 10-11, 15-16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in

³ See the Kwok et al. reference, page 69, right column, lines 20-22.

view of the Benson et al. reference and further in view of the Chai et al. reference. The rejection is respectfully traversed for at least the following reasons.

As discussed above, applicants respectfully submit that the Kwok et al., the Benson et al., and the Chai et al. references, individually or in any combination, fail to disclose, or even suggest, the subject matter presently recited in claim 1. In particular, applicants respectfully submit that the Kwok et al., the Benson et al., and the Chai et al. references fail to disclose, or even suggest, “the apparatus is configured to control pressure applied to each of the measurement sensors so that the pressure applied by the measurement sensors can be varied.”

Similarly, amended independent claim 15 now recites, *inter alia*, “controlling pressure applied to each of the measurement sensors of the multi-channel electrode so that the pressure applied by the measurement sensors can be varied.” Accordingly, applicants respectfully submit that claim 15 is also allowable as similarly discussed above with respect to claim 1.

Accordingly, for at least the reasons discussed above, applicants respectfully submit that the combination of the Kwok et al., the Benson et al., and the Chai et al. references fails to disclose, or even suggest, all of the features of claims 1-2, 4-5, 7, 10-11, 15-16 and 19. Therefore, applicants respectfully request that the rejections be favorably reconsidered and withdrawn.

G. Asserted Obviousness Rejection of Claim 3

In the outstanding Final Office action, claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. and Chai et al. references and further in view of the Sun et al. reference. The rejection is respectfully traversed for at least the following reasons.

Claim 3 depends from claim 1, and is allowable for at least the reasons that claim 1 is allowable. Accordingly, applicants respectfully request that this rejection be favorably reconsidered and withdrawn.

H. Asserted Obviousness Rejection of Claim 6

In the outstanding Final Office action, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Benson et al. and Chai et al. references, and further in view of the Ho reference. The rejection is respectfully traversed for at least the following reasons.

Claim 6 depends from claim 1, and is allowable for at least the reasons that claim 1 is allowable. Accordingly, applicants respectfully request that this rejection be favorably reconsidered and withdrawn.

[[I. Request for an Interview : *Dependent on client's instructions*]]

Applicants respectfully request, prior to the issuance of an action on the merits, that the Examiner grant an in-person interview with applicants' representative in order to discuss the differences between the cited prior art and the subject matter recited in the claims. Thus, it is respectfully requested that the Examiner contact applicants' representative by telephone, at the number given below, to schedule an in-person interview.

J. Conclusion

The above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome the rejections. However, these remarks are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied prior art. Accordingly, applicants do not contend that the claims are patentable solely on the basis of the particular claim elements discussed above.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

LEE & MORSE, P.C.

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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying papers may also be charged to Deposit Account No. 50-1645.